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ABSTRACT

The author claims that the nature of the social sciences is to combine interpretive and empirical approaches in an attempt to understand human thought and behavior. He views the domain of social sciences as being different from that of the humanities or the natural sciences. Social scientists test interpretations by considering the extent to which they are supported or undercut by empirical data, but recognize that data alone neither prove nor disprove the interpretation. Experimentation is made difficult by the number and relations among variables, the subjective nature of variables, and ethical issues involved in human experimentation. Thus, the social sciences include both a core of "scientific knowledge" and introspective knowledge. Social sciences and the humanities differ in their focus: the humanities emphasize the individual almost to the exclusion of the group, whereas the social sciences focus on groups. Also, both the humanities and the natural sciences tend to deal in absolutes while the social sciences deal in statements of tendency. Thus, the social sciences reflect a characteristic way of viewing human behavior that is analytic, systematic and theoretical; a characteristic focus on topics such as social structures; attention to the nature and functioning of human groups; an appreciation for the need to embrace both empirical and subjective elements; and the desire to go beyond knowledge of these things to understand their significance and meaning. (Author/KC)

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The Social Sciences as a Domain of Knowledge

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The Social Sciences as a Domain of Knowledge

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Human thought and behavior, including the structure of society and the activities of its members, form the substantive focus for the social sciences. I am willing to support the argument that "science" is appropriately a part of the domain's title because much of the scientific approach and method can be employed in investigating such subject matter. But I will also argue that scientific methods alone--by which I refer to the development of empirically verifiable generalizations based on data from observation of the physical and natural world (often through experimentation and replication)--are not and cannot be adequate to the task.

Social science is no more monolithic than other domains of knowledge; agreement is lacking even as to what disciplines belong within the domain, perhaps because there is no consensus as to what ties those fields together besides the extent to which they all focus on human beings. I suggest that the typical social science focuses on humans in the aggregate, sometimes as a primary concern (e.g., the structure of society, intergroup relations), sometimes as the context in which to understand individual acts. Moreover, social science seeks to generalize about human thought and behavior, rather than celebrating human uniqueness, as it seeks to extract from individual instances the capacity to explain and understand what has happened (through finding causal relationships) as well as to predict what will happen (often through correlational relationships).

The nature of the data with which social scientists must work also imposes its own influence on the field. The number of variables relevant to any human activity at any moment in time is immense, and the relationships among those

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variables are both complex and quite probably unique--unlikely ever to recur in precisely that same constellation. Frequently, then, the social sciences must emphasize diachronic, post hoc analysis and explanation, in which an event or behavior may not be fully understood without a similar understanding of the historical circumstances in which it occurred. Experimentation and replication are made difficult by the number and relationships among variables, the difficulty of identifying (much less controlling) all significant variables, and the inherently subjective nature of many of those variables, to say nothing of the ethical issues involved in human experimentation. The social sciences have not yet had their Newtonian revolution, in which widespread support develops for a paradigm through which to define which variables are significant and which may appropriately be ignored. Little wonder that social science models are not as elegant as those in the idealized world of two-body physics: introduce more bodies (variables) into models of the natural world and those models, too, lose elegance.

In sum, social science deals with the product of human thought and behavior as well as the mechanisms by which they are accomplished. It seeks to reveal a pattern where none appeared before. Perhaps its truth lies in its utility, its capacity to help us understand, rather than its freedom from error. In this process I am prepared to accept, as I believe the social sciences accept, some de-emphasis of the individual datum; unlike the sciences, wherein a single nonconforming datum should call into question a generalization, the social sciences necessarily accept the premise that, in such complex situations as the ones with which they deal, the fit of generalizations to individual observations will be approximate at best. Thus it is that the social sciences typically deal in probabilities, a characteristic intellectual approach to acceptance and rejection of "proof" that I believe obtains whether or not actual

statistical tests are used and that can be traced to awareness of possible measurement error as well as of capriciously behaving conscious individuals. Though I have vowed to avoid (for a time) consideration of what social science is by what the other domains are or are not, it does seem worth observing at this point that for different reasons both the sciences and humanities impute greater meaning to the individual datum than do the social sciences--the nomothetic sciences because of their cumulative, progressive character that requires the individual empirically observed datum to fit properly within existing generalizations, the ideographic humanities because almost by definition they deal with human uniqueness. Since they strive to find the figure in the carpet, social scientists must be especially aware of the misplaced order fallacy, the tendency to impose order on unrelated entities.

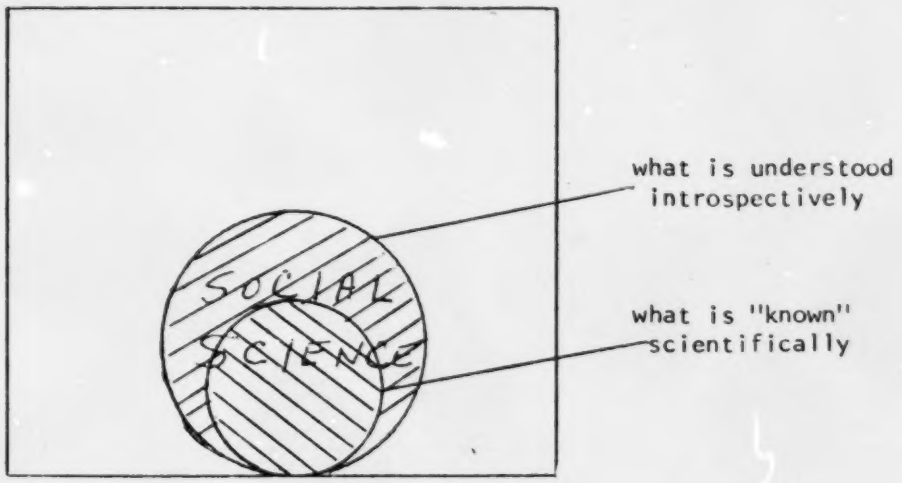
With Hegel, I find that social reality exists only through human consciousness. Thus it is that social science data and methods inescapably include subjective elements. Many relevant phenomena, especially those such as motivation and valuation that are internal to the actors, are not knowable through purely empirical means. If our goal is to understand, I suggest that, at least in the social sciences, there is a difference between knowing and understanding (wissen and verstehen), where scientific knowledge is necessarily a part of, but also necessarily only a part of what is required to achieve understanding. Social science does not reject objective, verifiable data derived from keen observation of empirical phenomena, far from it; one of the distinguishing characteristics of the domain, I think, is that it strives to produce and utilize such data. But it does not stop there; concerned with both what and why, in any except a billiard-ball universe, social science must necessarily deal with subjective factors such as motivation. Even language, the principal medium through which we deal with subjective factors, is itself inescapably subjective.

To deal with subjective material we must be prepared to interpret human behavior. According to Weber, this interpretation is the attempt to explain behavior by reference to the meaning the agent attaches to his actions or the meaning attached to his actions by the social or institutional framework in which he lives, rather than by causal laws independent of him. Interpretive understanding means extending to the actions of others the direct understanding we would have of our own behavior in similar circumstances. We have the capacity to understand in this way because, since social scientists, too, are human beings, we share with other humans some similar experiences, can identify in some ways with them, and can achieve some empathetic understanding of their actions. Such understanding is limited in many ways. We must be careful not to over-interpret the actor's understanding of his actions, for he may be unable to see accurately the full range of factors influencing his own behavior; similarly, our own limited range of experience may make it exceedingly difficult for us to achieve empathetic understanding of persons and actions quite foreign to us. Even so, the difference between what we share with other human beings, regardless of culture, and with any inanimate object is so great that I believe we can understand human thought and behavior in a way qualitatively different from our knowledge of the nonhuman world. We could never introspectively understand a billiard ball, though, because we will never share the experience of being a billiard ball.

As social scientists, we seek to test our interpretations by considering the extent to which they are supported or undercut by empirical data, but we recognize that such data alone neither prove nor disprove the truth or falsity of our interpretation. Nor can this interpretive understanding ("verstehen") be replaced by something different in kind, but only by a better interpretation. The social scientist may be seen as analogous to the physicist who studies

different theories of the natural order. His theories are built on something, and that something--not the theory itself--is the subject matter of the natural sciences. The natural scientist's theories may thus be similar to the social scientist's interpretations.

A simple Venn diagram may help illustrate my understanding of both the concept of "verstehen" and the nature of the social sciences:



I have drawn the province of the social sciences as including both a core of "scientific knowledge"--empirically observable and verifiable in some way--and a penumbra of "verstehen"--belief or understanding that one accepts but on other than empirical grounds alone. I would hope, as I believe most social scientists would hope, that ours can be a cumulative, progressive enterprise, because the better we know, the more fully and accurately we may be able to understand. To the extent that we accept "verstehen," though, we tend to make our data "dirty" and may undercut our capacity to be progressive. In part, this may be simply because we are impulsive--not an unlikely manifestation of an immature field. In part, too, it is inevitable that our data will be

dirty, since we are dealing with "messy" situations which are complex and largely uncontrollable. But it is the special character of the social sciences that we deal with matters about which we cannot suspend judgment as one can in other fields. Life goes on, decisions must be made, and failure to decide is as much a decision in its effect as a decision itself. We have not always the luxury of suspending ethical judgment and action until we are fully knowledgeable to deal with it; a person in a coma will not necessarily live until we are fully prepared to resolve the matter of euthanasia.

Domains Compared

Having tried to indicate something about what social science is, it may also be instructive to consider what it is not; hence, a comparison of our three domains. Don Martindale, writing the the International Encyclopedia of the Social Sciences, states that the social sciences were created when the methods of the natural sciences were applied to the subject matter of the humanities in the late 1800s. I am a bit troubled by his view because I think that in some significant ways social science has been going on for quite a bit longer than that. It is interesting, though, that Table 1, which is of my own creation, does seem to underscore his characterization: overlap abounds, and indeed there is only one dimension on which my characterization of social science is distinct from both of the other domains. (Remember that I am seeking to understand both what social science is and what its distinctive contributions may be. I am thus considering domains almost as ideal types, looking far more at core than periphery, at the typical more than the unique; perhaps this approach is characteristic of the social science perspective from which it is written.)

Though the social sciences and humanities share a common source--human thought and behavior--for their subject matter, they have different foci, with

the humanities emphasizing the individual almost to the exclusion of the group and the social sciences including the individual in what is predominantly a focus on groups, humans in the aggregate. The natural sciences center their concerns on the natural and physical world, which, though related to human thought and behavior, is a distinctly different focus, one which shapes a characteristic approach the other two domains do not share. In particular, the natural/physical world yields a bounded and finite universe of possibility in which the practitioner seeks to discover all aspects of empirical reality through replication and verification of sensory observation. Both accepted professional canons and tangible physical reality can be used as referents in the verification process. The social sciences and humanities, though, deal with an unbounded universe. Whereas barium and helium will never combine to form water, to take one of an almost infinite number of trivial examples, I see almost nothing that is a priori impossible in the area of human thought and behavior. To the extent that at least the subjective reality of mankind knows no bounds, then neither do the social sciences and humanities, for there is an infinitude of possibilities to be contemplated and understood. The varied nature of their data bases also necessitates a difference in method among the three domains. Just as science employs an experimental approach to objective reality and the humanities employ an interpretive, a priori approach to subjective reality, the social sciences must employ both approaches in order to deal with data of both types.

Though the social sciences share much with the humanities, they differ on two highly significant dimensions. The major cleavage comes between the humanities' idiographic approach (one sometimes could gather from more polemical humanists that it is almost a normatively prescribed goal) and the nomothetic approach of the social and natural sciences. Both types of science,

I think, seek to generalize (though they do it differently), to find regularities and similarities, and to create patterns of order into which they can fit individual pieces of data, so as to explain and predict; in short, both seek to build theory. In doing so the social sciences tend to obscure (or discard, as some polemicists would say) the unique human beings from whom social science data emanate. If there be an unforgivable sin in the eyes of humanists this is undoubtedly it, giving rise to the epithet that one "has committed a social science." (A parallel charge would come from humanists who feel that, in adopting an analytic approach, the social scientist destroys the aesthetic appreciation which is due human beings and their creations.) At their best, humanities seek generalizations too, but of a subjective rather than an analytic sort. Much of what we call "great" literature is accorded that status, I think, precisely because through the particulars it offers it enables us as individuals to develop an empathetic linkage with other human beings who also seek or have sought to understand themselves and their place in the cosmos. To this end, ambiguity and the contemplation of what could be are celebrated in the humanities, whereas the sciences seek certainly about what is.

The final dimension is one on which the social sciences differ not only from the humanities but from the natural sciences as well. For want of a better descriptor, I have called it the criterion on which knowledge is based. Alone among the three domains, normal science presumes the existence of a tangible, physical reality that serves as an absolute referent against which claims of truth or falsity can be tested. (Even the caution about claims of certainty from scientists on the cutting edge of fields like thermodynamics and quantum physics has not yet served to undercut the dominant Newtonian paradigm.) To the limited extent that the humanities are concerned with

criteria that extend beyond the individual knowing/perceiving human being, I sense that they, too, prefer to deal in absolutes.

The social sciences, though, bear a distinctly probabilistic cast; rather than absolute statements of truth ("X is true") or conditional statements of truth ("if X be true, then Y"), the social sciences commonly deal in statements of tendency ("if X be true then it is likely that Y will be true," or "then we can be fairly confident that Y will not be false more than a certain percentage of the time"). Even then, significant statements made by responsible and aware social scientists commonly are restricted so that the probabilistic statements obtain only under certain highly limiting conditions ("if there were perfect information and perfect mobility of labor, then it is likely that most people would . . . "). This probabilistic cast is the only element I have found that is unique to the social sciences, though the combination of substance and method found in the social sciences is certainly distinctive from either of the other two domains.

Summary

To summarize, the social sciences combine interpretive and empirical approaches as they seek to understand the nature and products of human thought and behavior. Dealing with human groups as well as individuals, they seek to build theories and generalizations that are typically couched in probabilistic terms. The social sciences' distinctive contribution is both substantive and methodological. They reflect a characteristic way of viewing human thought and behavior that is analytic, systematic, and striving to be theoretic; a characteristic focus on topics such as social structures that typify the social sciences and with which they alone deal; attention to the nature and functioning of human groups; an appreciation for the need to and implication of embracing both empirical and subjective elements; and the desire to go beyond knowledge of these things to understand their significance and meaning.

The variables with which social science deals are so numerous and so complexly interrelated that the data are not only "dirty" but, at least at this stage in the development of the domain, not altogether adequate to the task. The gap between what is known and what must be understood may perhaps be shrinking, but it is still vast. Noting that the social scientist's penchant for building complex theoretical structures seems undaunted by the paucity of his data, the scientist's characterization of social science as "a lattice passing in search of two points" is marvelously apt.

TABLE 1

RELATIONSHIPS AMONG DOMAINS OF KNOWLEDGE

Dimension of Comparison	Domains		
	Natural Science	Social Science	Humanities
1) Data Base	← objective reality →	← subjective reality →	
2) Subject Matter	physical world	← human thought and behavior →	
3) Nature of Subject Matter	bounded and finite	← unbounded and infinite →	
4) Unit of Analysis		individual and group	individual
5) Process	sensory observation	← observation and interpretation →	
6) Methodology	← experimental →	← insightful →	
7) Approach	← nomothetic →		idiographic
8) Criterion for Knowledge	certainty	probability	certainty